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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,426	10/12/2001	Darren Kenneth Rogers	1482(Touchstone)	1151

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EXAMINER	
VO, HAI	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/976,426	REED ET AL.	
	Examiner	Art Unit	
	Hai Vo	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) *7,8 and 13* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,9-12 and 14-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Election/Restrictions

1. Newly submitted claim 13 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

I. Claims 1-6, 9-12, and 14-18 drawn to a radar emission absorbing material, classified in class 428, subclass 304.4+.

II. Claims 7, 8 and 13 drawn to a method for producing a radar emission absorbing material, classified in class 106, subclass 122.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by another and materially different process such as one heats the ground coal to a temperature over 600°C.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 13 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-6, 9-11, and 14-18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Stiller et al (US 5,888,469) substantially as set forth in the 07/07/03 Office Action. Applicant argues that the asphaltene portion used by Stiller to form carbon foam is different than that materials identified in the present invention for forming carbon foam. The examiner disagrees. Stiller and Applicant appear to use the same starting material bituminous coals that have been comminuted to an appropriate particle size of about –60 to -80 mesh to form the carbon foam (column 3, lines 63-65 vs. Applicant's specification, page 5, line 19). The Stiller particulate coal has the particle size within the range disclosed in Applicant's specification. Applicant states that "it has been found that bituminuous coals exhibiting free swell indexes within the claimed rages provided the best foam products in the form of the lowest foam densities and the highest foam specific strengths (compressive strength /density)". The carbon foam of the Stiller

has a compressive strength and density within the claimed ranges. Hence, it is not seen that the starting material bituminuous coals of Stiller would exhibit free swell indexes outside the claimed range to enable the carbon foam for attaining the compressive strength and density within the claimed ranges. The examiner agrees Stiller is silent as to a dielectric constant and an electrical resistivity of the carbon foam. However, the mere absence of a positive recitation is not basis for an exclusion. Most importantly, the foam of Stiller is made from the same starting materials and physical attributes such as density, compressive strength are apparently achieved by Stiller. Therefore, it is the examiner's position that the dielectric constant and an electrical resistivity would be inherently present. It seems from the claim, if one meets the structure recited, the properties must be met or Applicant's claim is incomplete. This is in line with ***In re Spada***, 15 USPQ 2d 1655 (1990) which holds that products of identical chemical composition can not have mutually exclusive properties. Therefore, the art rejections are thus maintained.

5. Claims 1, 2, 12, 14 and 15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over McCullough, Jr. et al (US 5,312,678). McCullogh, Jr. teaches a camouflage blanket comprising at least one layer of radar absorbing carbonaceous foam (claim 21, column 6, lines 58-61). The carbonaceous foam has a resistivity of $4x10^6$ to $4x10^3$ohm-cm within the claimed range (column 6, lines 12-13). McCullough, Jr. does not specifically disclose the dielectric constant of the foam. However, it appears that the McCullogh, Jr. foam has the volume resistivity within the claimed range and serves for the purposes of radar

absorption as the carbon foam of the present invention. It is noted that the dielectric structure is quite effective in absorbing microwave energy. Therefore, it is not seen that the carbonaceous foam of McCullogh, Jr. would have a dielectric constant outside the claimed range for effective radar absorptive characteristics. Note ***In re Best*** 195 USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made under 35 USC 102. It is the examiner's position that McCullogh, Jr. anticipates or strongly suggests the claimed subject matter.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stiller et al (US 5,888,469) in view of Klett et al (US 6,673,328). Stiller discloses that the carbon foam is suitable for use in thermal insulating applications (column 4, lines 50-52). Stiller does not specifically disclose the carbon foam provided on a surface of the body. Klett discloses the cooled cold box containing a carbon foam within the box (figure 18). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the carbonaceous foam in the cooled cold box of Klett motivated by the desire to provide cooling effect.
7. Claims 1, 2, 12, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perkins et al (US 5,525,988) in view of McCullough, Jr. et al (US 5,312,678). Perkins teaches a radar absorbing holster comprising a rigid housing having electromagnetically reflective properties and an electromagnetically absorbing carbonaceous foam layer disposed on the inner surface of the housing (abstract, claim 1). Perkins does not specifically disclose the dielectric constant and

electrical resistivity of the carbonaceous foam. Therefore, it is necessary and thus obvious for the skilled artisan to look to the prior art for the suitable dielectric constant of the carbonaceous foam. McCullough, Jr. teaches a camouflage blanket comprising at least one layer of radar absorbing carbonaceous foam (claim 21, column 6, lines 58-61). The carbonaceous foam has a resistivity of $4x10^6$ to $4x10^3$ohm-cm within the claimed range (column 6, lines 12-13). Therefore, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the carbonaceous foam having the resistivity instantly claimed motivated by the desire to provide the foam having excellent radar absorbing properties, which is important to the expectation of successfully practicing the invention of Perkins, thus further suggesting the modification.

Perkins does not specifically disclose the dielectric constant of the carbonaceous foam. It appears that the carbonaceous foam of Perkins as modified by McCullogh, Jr. has the volume resistivity within the claimed range and serves for the purposes of radar absorption as the carbon foam of the present invention. It is noted that the dielectric structure is quite effective in absorbing microwave energy. Therefore, it is not seen that the dielectric constant would be outside the claimed range for effective radar absorptive characteristics.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re*

Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1-6, 9-11, and 14-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of copending Application No. 09/976,172 substantially as set forth in the 07/07/03 Office Action. Applicant argues that claims 1-18 of pending Application No. 09/976,172 are directed to activated carbon foam while the present invention is related to a carbon foam having radar-absorbing properties, therefore, the two applications are directed to different inventions. The examiner disagrees. Claims 1-18 of copending Application No. 09/976,172 reads on the all the claim limitations except a dielectric constant and an electrical resistivity of the carbon foam. The activated carbon foam is formed from particulate coal having a free swell index within the claimed range. The activated carbon foam has a density within the claimed range. The activated carbon foam is basically formed by the same procedure recited in the claims, heating swellable particulate coal to form a green foam in the temperature and pressure condition similar to the condition as described in the present invention, cooling the green foam, and carbonizing the green foam to form a carbonized foam. Most importantly, the foam of the copending Application

No. 09/976,172 is made from the particulate coals having free swell index similar to that of the particulate coals of the present invention. The foam of the copending Application No. 09/976,172 has a density within the claimed range. Therefore, it is the examiner's position that the dielectric constant and an electrical resistivity would be inherently present. It seems from the claim, if one meets the structure recited, the properties must be met or Applicant's claim is incomplete. This is in line with ***In re Spada***, 15 USPQ 2d 1655 (1990) which holds that products of identical chemical composition can not have mutually exclusive properties. Like material has like property.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claim 12 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of copending Application No. 09/976,172 in view of in view of Klett et al (US 6,673,328). It appears that the carbon foam of copending Application No. 09/976,172 is suitable for use in thermal insulating applications (column 4, lines 50-52). Stiller does not specifically disclose the carbon foam provided on a surface of the body. Schmitt discloses the cooled cold box containing a carbon foam within the box (figure 18). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the carbonaceous foam in the cooled cold box of Klett motivated by the desire to provide cooling effect.

This is a provisional obviousness-type double patenting rejection.

11. Claims 1-6, 9-11, and 14-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,656,238. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-11 of U.S. Patent No. 6,656,238 read on all the claim limitations of the presently claimed subject except a dielectric constant and an electrical resistivity of the carbon foam. See the inherency rational set forth in the paragraph no. 9.

12. Claim 12 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,656,238 in view of Klett et al (US 6,673,328). It appears that the carbon foam of U.S. Patent No. 6,656,238 is suitable for use in thermal insulating applications (column 6, lines 25-26). Claims 1-11 of U.S. Patent No. 6,656,238 do not specifically disclose the carbon foam provided on a surface of the body. Klett discloses the cooled cold box comprising a carbon foam within the box (figure 18). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the carbonaceous foam in the cooled cold box of Klett motivated by the desire to provide cooling effect.

13. Claims 1-6, 9-11, and 14-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,656,239. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-11 of U.S. Patent No. 6,656,239 read on all the claim limitations of the presently claimed subject except a

dielectric constant and an electrical resistivity of the carbon foam. See the inherency rational set forth in the paragraph no. 9.

14. Claim 12 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,656,239 in view of Klett et al (US 6,673,328). It appears that the carbon foam of U.S. Patent No. 6,656,239 is suitable for use in thermal insulating applications (column 2, lines 5-7). Claims 1-11 of U.S. Patent No. 6,656,239 does not specifically disclose the carbon foam provided on a surface of the body. Klett discloses the cooled cold box containing a carbon foam within the box (figure 18). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the carbonaceous foam in the cooled cold box of Klett motivated by the desire to provide cooling effect.

15. The specification objections have been overcome by the present amendment.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on M,T,Th, F, 7:00-4:30 and on alternating Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hai Vo

HV